

10. Haro Strait

Special Management Fishery Area

Date of Establishment: Between 1979 and 1987 (exact date uncertain) (Bradbury, personal communication 1997c).

Establishing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

Managing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

County: San Juan

Location/Vicinity: In the San Juan archipelago, off the west coast of San Juan Island (see **Map 13**).

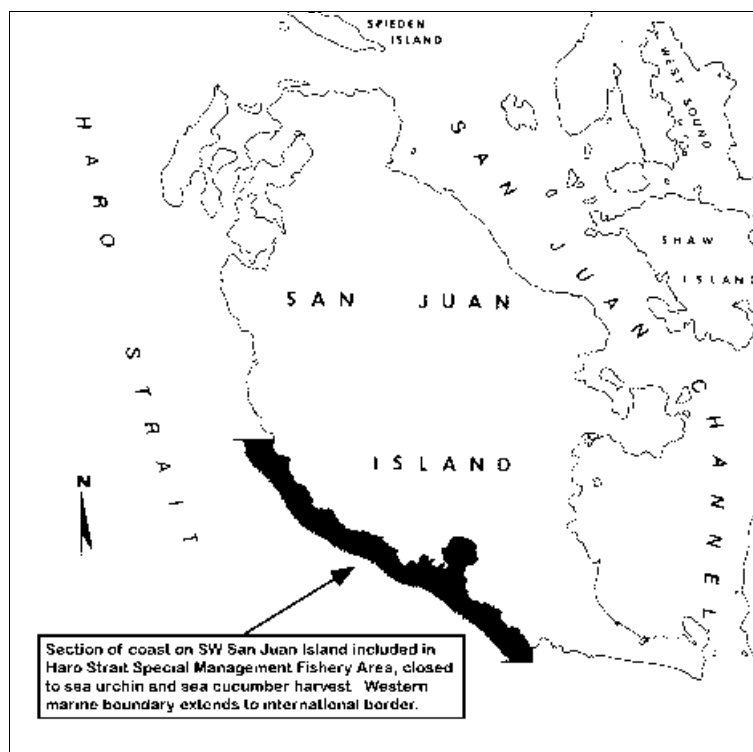
Marine Boundary Description/Discussion: The closed area is located within WDFW's sea urchin district 2 and sea cucumber district 1, encompassing those waters north of a line projected east-west one-half mile south of eagle point on San Juan Island, and south of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island (WAC 220-52-071 and -073) (see **Map 13**).

Adjacent or Overlapping Marine Protected Areas: This site overlaps (completely or partially) the following: the San Juan County/Cypress Island Marine Biological Preserve; the San Juan Islands Marine Preserve site at False Bay; Pile Point and Deadman Bay Voluntary No-Take Bottomfish Recovery Areas; Lime Kiln State Park; and the San Juan Islands National Wildlife Refuge at one site (seven unnamed islands).

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	unknown	unknown	unknown

Map 13. Approximate Location of Haro Strait Special Management Fishery Area



Goals/Purpose/Objectives:

The closure area serves the following two fisheries management purposes (Bradbury 1996):

- Functions as a control area to assess the impacts of fisheries
- Provides harvest refugia as a management strategy

As a sufficiently large and long-term closed control area, the site allows for the effects of commercial fisheries on sea urchin and sea cucumber abundance to be separated from other natural effects (Bradbury 1996).

Primary Legal Authority

Commercial closure for sea cucumbers: WAC 220-52-071 (1)(a)(i).

Commercial closure sea urchins: WAC 220-52-073(1)(b)(ii).

Natural and/or Cultural Resource Values/Highlights

This site is one of only two in the state (the other found at San Juan and Upright Channels) providing harvest refugia for sea urchins and sea cucumbers on such a large spatial scale. The San Juan Islands are now responsible for the state's largest annual catches of red sea urchins and

sea cucumbers, and although many factors could be responsible for this, closed areas (such as this site) may be a contributing factor (Bradbury 1996).

Restrictions on Human Activities to Protect Marine Resources

The Washington Department of Fish and Wildlife has closed this area to commercial harvest of sea urchins and sea cucumbers at all times.

MANAGEMENT OF THE SITE

Planning

Information on the establishment of and earliest planning for this MPA is apparently missing, and determination of an exact year of establishment is not certain. For example, commercial fishing of urchin occurred until 1978 before ceasing (Bradbury, personal communication 1997c). However, some information is known about management planning for this closed area that was initiated in 1988 by the Washington Department of Fisheries (WDF 1988).

Washington's sea urchin fleet grew rapidly from 1986 to 1988. Landings in 1989 reached 8.1 million pounds, prompting the first emergency closure (University of California Sea Grant 1995). The University of Washington's Friday Harbor Laboratories (FHL) approached the Washington Department of Fisheries (WDF) and urged commercial harvest closure for urchins and cucumbers throughout the San Juan Islands. The request was based on concerns for a possible population crash, problems observed with poaching and enforcement, and the value of harvest refugia and sea urchins for scientific research (WDF 1988a; Duggins, personal communication 1997).

To address these issues, WDF developed a shellfish management response based on the concept of the establishment of a "management reserve" to effectively manage shellfish for commercial, recreational and scientific communities. As originally proposed, the management reserve was to represent a large area of the San Juan Islands within which commercial and recreational harvest fisheries could be permitted under management plans that guarantee no overharvest take place (WDF 1988b). Within the management reserve it was proposed that this site and one other (in portions of San Juan and Upright Channel) would remain closed to all commercial sea urchin and sea cucumber harvest until further notice (WDF 1988b). The closed areas were intended to serve a purpose of allowing climax populations of urchins and cucumbers to grow within the San Juan Islands (WDF 1988). As proposals emerged for the establishment of no-take MPAs in the San Juans, WDF considered that these larger closed areas could serve as buffers for the new smaller "total" preserves (WDF 1988).

While this reserve and closed area buffer management approach was not formally adopted, the site has remained closed to commercial harvest of sea urchins and sea cucumbers, and five San Juan Islands Marine Preserve sites were subsequently designated in 1990 (refer to Sites 1-5). One of these preserves, at False Bay, is buffered by this site.

This closed area, as well as the San Juan and Upright Channel site, is currently managed by WDFW in accordance with the Sea Cucumber Harvest Management Plan and the Red and Green Sea Urchin Harvest Management Plan (Bradbury 1996).

Recently, WDFW and the Treaty Tribes have been engaged in negotiations about areas closed to shellfish harvest, including this site. The Friday Harbor Laboratories have also assisted in this effort by providing descriptions of research projects concerning sea urchin and sea cucumber populations that have been conducted within this and other closed areas, as well as justification for continued closure of these fisheries (Bradbury 1996). As a result of this process, two other small areas in the San Juan Islands (Green Point on Spieden Island and Gull Rock), that were also managed under the same harvest closure restrictions as this site, were re-opened for harvest in October of 1997 (Bradbury, personal communication 1997b). As WDFW and the Tribes continue these negotiations, additional changes and possible re-openings of closed areas may occur in the future (Bradbury, personal communication 1997b).

Supervision/Enforcement

The area is periodically patrolled by WDFW commissioned officers, who have the authority to enforce regulations. Staff of the University of Washington's Friday Harbor Laboratories also keep an eye out, and provide an educational enforcement presence (Duggins, personal communication 1997).

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Given that one of the primary purposes for establishment of this closed area is to function as a control area that can be compared with fished areas (as previously mentioned), a wide variety of research has been conducted within, and facilitated by, this site. WDFW has for years conducted management-related studies within the site in areas such as the following:

- Red sea urchin mortality and growth studies
- Red sea urchin abundance estimates in fished and unfished areas
- Sea cucumber abundance estimates in fished and unfished areas

WDFW estimates of sea cucumber abundance computed from 1994 video data appeared to show the mean density was higher in the closed area than in fished areas, but the results were inconclusive due to a high variance and differences in habitat. Similarly inconclusive results were found for sea urchins (Bradbury, personal communication 1997c). Additionally, many studies and research projects carried out within this closed area have been conducted by researchers at the Friday Harbor Laboratories.

For More Information:

Washington Department of Fish and Wildlife
Point Whitney Shellfish Laboratory
1000 Point Whitney Road
Brinnon, WA 98320

Telephone: (360) 796-4997

11. San Juan Channel and Upright Channel

Special Management Fishery Area

Date of Establishment: 1972

Establishing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

Managing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

County: San Juan

Location/Vicinity: In the San Juan archipelago, in portions of the San Juan Channel and Upright Channel, between San Juan Island and Orcas and Shaw Islands (**Map 14**).

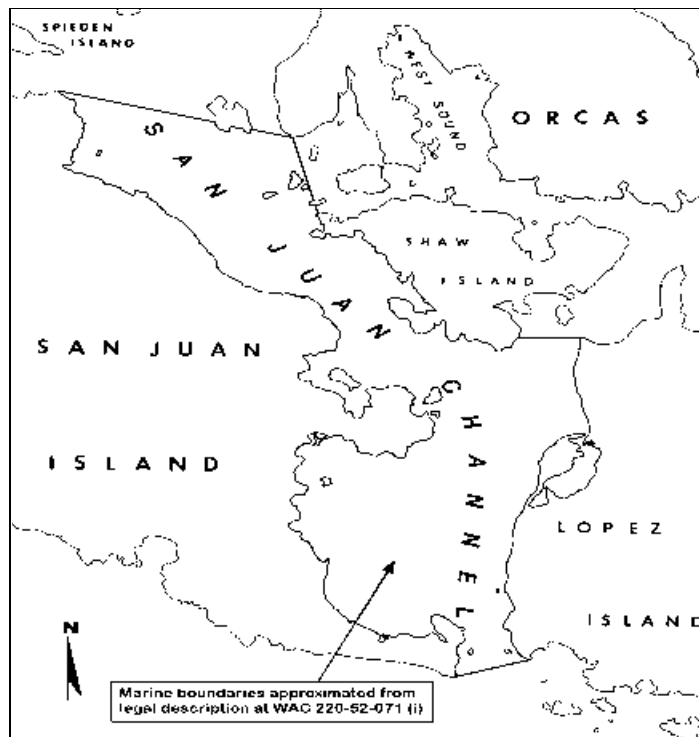
Marine Boundary Description/Discussion: The closed area is located within WDFW's sea urchin district 1 and sea cucumber district 1, in the San Juan Channel and Upright Channel within the following lines: North of a line from Cattle Point on San Juan Island to Davis Point on Lopez Island; south of a line projected from Flat Point on Lopez Island true west to Shaw Island; west of a line from Neck point on Shaw Island to Steep Point on Orcas Island; and south of a line from Steep Point on Orcas Island to Limestone point on San Juan Island (WAC 220-52-071 and -073) (see **Map 14**).

Adjacent or Overlapping Marine Protected Areas: This large site overlaps (completely or partially) the following: the San Juan County/Cypress Island Marine Biological Preserve; San Juan Islands Marine Preserve sites at Friday Harbor-to-Point Caution, Yellow and Low Islands, Argyle Lagoon and SW Shaw Island; San Juan Islands National Wildlife Refuge (13 of the 83 sites); Preserves of The Nature Conservancy at Yellow, Goose and Deadman Islands; Turn Island Marine State Park; and Jones Island Marine State Park.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	unknown	unknown	unknown

**Map 14. Approximate Location of San Juan Channel and Upright Channel
Special Management Fishery Area**



Goals/Purpose/Objectives:

The closure area serves the following two fisheries management purposes (Bradbury 1996):

- Functions as a control area to assess the impacts of fisheries
- Provides harvest refugia as a management strategy

As a sufficiently large and long-term closed control area, the site allows for the effects of commercial fisheries on sea urchin and sea cucumber abundance to be separated from other natural effects (Bradbury 1996).

Primary Legal Authority

Commercial closure for sea cucumbers: WAC 220-52-071 (1)(a)(i).

Commercial closure sea urchins: WAC 220-52-073(1)(b)(ii).

Natural and/or Cultural Resource Values/Highlights

This site is one of only two in the state (the other being at Haro Strait) providing harvest refugia for sea urchins and sea cucumbers on such a large spatial scale. The San Juan Islands are now responsible for the state's largest annual catches of red sea urchins and sea cucumbers, and

although many factors could be responsible for this, closed areas (such as this site) may be a contributing factor (Bradbury 1996).

Restrictions on Human Activities to Protect Marine Resources

The Washington Department of Fish and Wildlife has closed this area to commercial harvest of sea urchins and sea cucumbers at all times.

MANAGEMENT OF THE SITE

Planning

Information on the establishment of and earliest planning for this MPA is apparently missing. However, some information is known about management planning for this closed area that was initiated in 1988 by the Washington Department of Fisheries (WDF 1988).

Washington's sea urchin fleet grew rapidly from 1986 to 1988. Landings in 1989 reached 8.1 million pounds, prompting the first emergency closure (University of California Sea Grant 1995). The University of Washington's Friday Harbor Laboratories (FHL) approached the Washington Department of Fisheries (WDF) and urged commercial harvest closure for urchins and cucumbers throughout the San Juan Islands. The request was based on concerns for a possible population crash, problems observed with poaching and enforcement, and the value of harvest refugia and sea urchins for scientific research (WDF 1988a; Duggins, personal communication 1997).

To address these issues, WDF developed a shellfish management response based on the concept of the establishment of a "management reserve" to effectively manage shellfish for commercial, recreational and scientific communities. As originally proposed, the management reserve was to represent a large area of the San Juan Islands within which commercial and recreational harvest fisheries could be permitted under management plans that guarantee no overharvest take place (WDF 1988b). Within the management reserve it was proposed that this site and one other (in portions of Haro Strait) would remain closed to all commercial sea urchin and sea cucumber harvest until further notice (WDF 1988b). The closed areas were intended to serve a purpose of allowing climax populations of urchins and cucumbers to grow within the San Juan Islands (WDF 1988). As proposals emerged for the establishment of no-take MPAs in the San Juans, WDF considered that these larger closed areas could serve as buffers for the new smaller "total" preserves (WDF 1988).

While this reserve and closed area buffer management approach was not formally adopted, the site has remained closed to commercial harvest of sea urchins and sea cucumbers, and five San Juan Islands Marine Preserve sites were subsequently designated in 1990 (refer to Sites 1-5). Four of these preserves, located at Yellow and Low Islands, Argyle Lagoon, SW Shaw Island (near Point George), and Friday Harbor (to Point Caution), are buffered by this site.

This closed area, as well as the San Juan and Upright Channel site, is currently managed by WDFW in accordance with the Sea Cucumber Harvest Management Plan and the Red and Green Sea Urchin Harvest Management Plan (Bradbury 1996).

Recently, WDFW and the Treaty Tribes have been engaged in negotiations about areas closed to shellfish harvest, including this site. The Friday Harbor Laboratories have also assisted in this effort by providing descriptions of research projects concerning sea urchin and sea cucumber populations that have been conducted within this and other closed areas, as well as justification for continued closure of these fisheries (Bradbury 1996). As a result of this process, two other small areas in the San Juan Islands (Green Point on Spieden Island and Gull Rock), that were also managed under the same harvest closure restrictions as this site, were re-opened for harvest in October of 1997 (Bradbury, personal communication 1997b). As WDFW and the Tribes continue these negotiations, additional changes and possible re-openings of closed areas may occur in the future (Bradbury, personal communication 1997b).

Supervision/Enforcement

The area is periodically patrolled by WDFW commissioned officers, who have the authority to enforce regulations. Staff of the University of Washington's Friday Harbor Laboratories also keep an eye out, and provide an educational enforcement presence (Duggins, personal communication 1997).

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Given that one of the primary purposes for establishment of this closed area is to function as a control area that can be compared with fished areas (as previously mentioned), a wide variety of research has been conducted within, and facilitated by, this site. WDFW has for years conducted management-related studies within the site in areas such as the following:

- Red sea urchin mortality and growth studies
- Red sea urchin abundance estimates in fished and unfished areas
- Sea cucumber abundance estimates in fished and unfished areas

WDFW estimates of sea cucumber abundance computed from 1994 video data appeared to show the mean density was higher in the closed area than in fished areas, but the results were inconclusive due to a high variance and differences in habitat. Similarly inconclusive results were found for sea urchins (Bradbury, personal communication 1997c).

Additionally, many studies and research projects carried out within this closed area have been conducted by researchers at the Friday Harbor Laboratories.

For More Information:

Washington Department of Fish and Wildlife
Point Whitney Shellfish Laboratory
1000 Point Whitney Road
Brinnon, WA 98320

Telephone: (360) 796-4997

12. Lawrence Point

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Lawrence Point is the eastern-most point of Orcas Island in the San Juan archipelago (see **Map 15**). The site is on the northeast side of Lawrence Point.

Marine Boundary Description/Discussion: The site is bounded on land by the 1500 yards of shoreline extending northwest along the northeast side of Lawrence Point (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

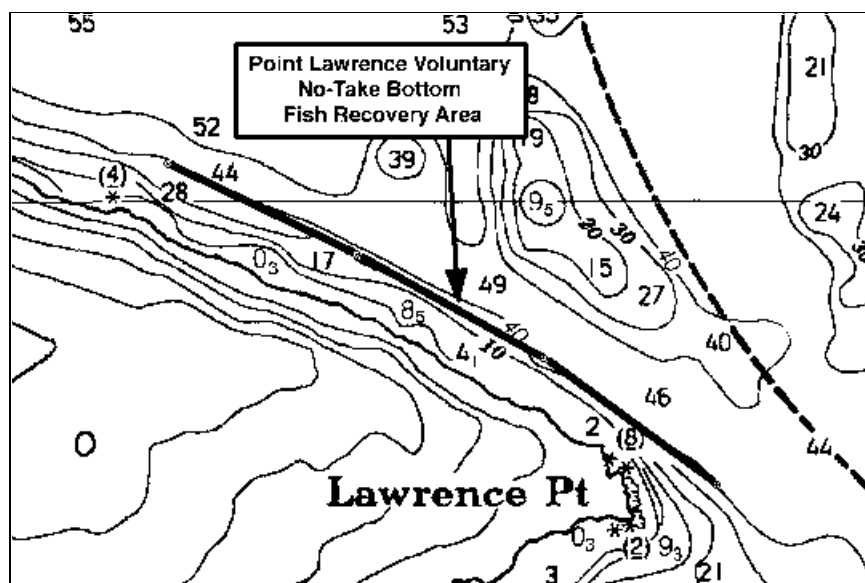
Adjacent or Overlapping Marine Protected Areas: San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	136.4	4,500 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Lawrence Point site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 15. Lawrence Point Voluntary No-Take Bottom Fish Recovery Area
(Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Source: (Pacunski 1997)

Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Lawrence Point is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Lawrence Point has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Lawrence Point (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Lawrence Point and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Lawrence Point was one of the sites surveyed. Plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program

of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

13. Bell Island

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Bell Island is located at the east end of Wasp Passage between Shaw, Orcas and Crane Islands in the San Juan archipelago (see **Map 16**). The site is located along the east side of Bell Island.

Marine Boundary Description/Discussion: This subtidal site extends from the north point of Bell Island southerly to a reef area located at the southern end of the island (a distance of approximately 300 yards) (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

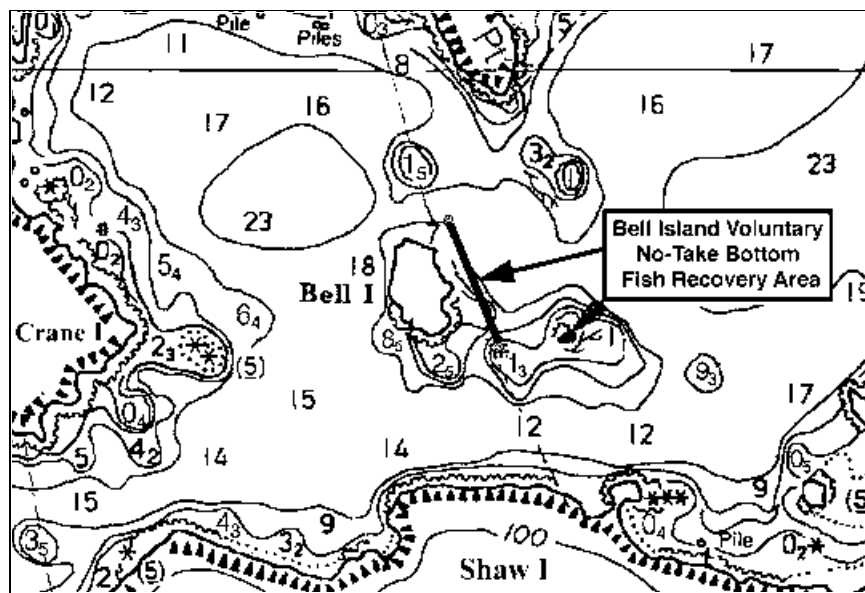
Adjacent or Overlapping Marine Protected Areas: San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	27.3	900 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Bell Island site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 16. Bell Island Voluntary No-Take Bottom Fish Recovery Area
 (Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Source: (Pacunski 1997)

Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Bell Island is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Bell Island has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of some bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Bell Island (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Bell Island and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Bell Island was one of the sites surveyed. Plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program of long

term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

14. Charles Island

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Charles Island is located at the southwest end of Lopez Island in the San Juan archipelago (see **Map 17**).

Marine Boundary Description/Discussion: The site is zoned on the southwest side of the island, extending from the west point southeasterly for approximately 600 yards (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

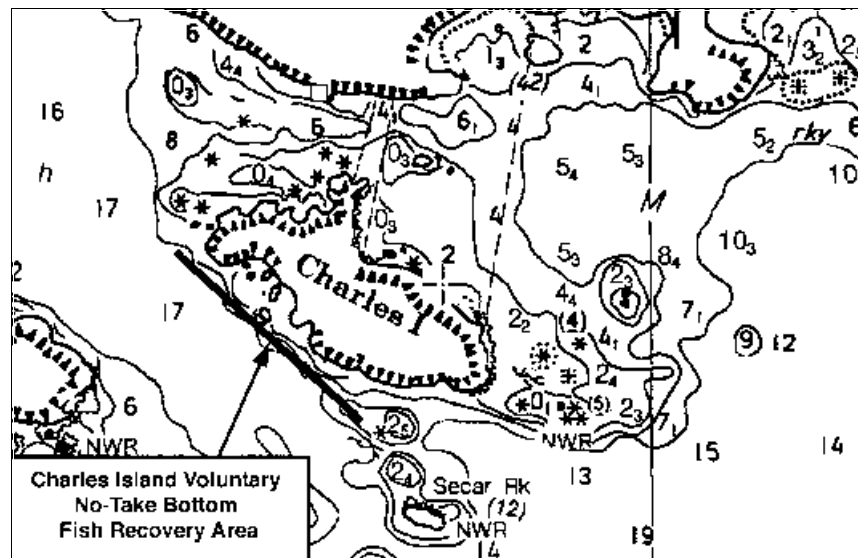
Adjacent or Overlapping Marine Protected Areas: San Juan and Cypress Island Marine Biological Reserve; Near to, but not directly abutting, several sites within the San Juan Islands National Wildlife Refuge (the closest being at Secar Rock, approximately 1/4 mile south).

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	54.5	1,800

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Charles Island site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 17. Charles Island Voluntary No-Take Bottom Fish Recovery Area
(Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Source: (Pacunski 1997)

Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Charles Island is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Charles Island has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Charles Island (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Charles Island and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Charles Island was one of the sites surveyed. Plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program

of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

15. Pile Point

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Pile Point is located on the southwest side of San Juan Island, just northwest of False Bay, in the San Juan archipelago (see **Map 18**).

Marine Boundary Description/Discussion: The site is bounded on land by a section of shoreline extending from Pile Point northwesterly for approximately 600 yards (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

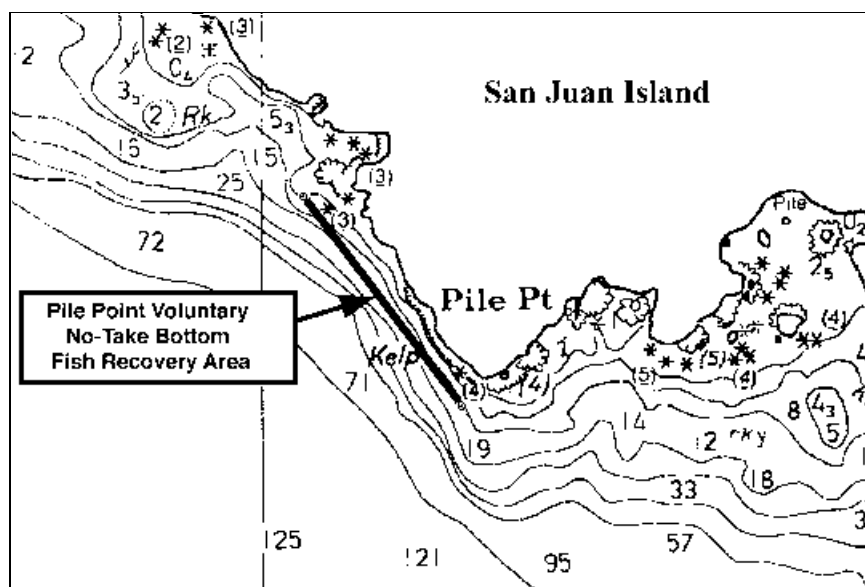
Adjacent or Overlapping Marine Protected Areas: Haro Strait Special Management Fishery Area (commercially closed sea urchin and sea cucumber area); San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	54.5	1,800

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Pile Point site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 18. Pile Point Voluntary No-Take Bottom Fish Recovery Area
(Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Source: (Pacunski 1997)

Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Pile Point is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Pile Point has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Pile Point (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Pile Point and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Pile Point was one of the sites surveyed. Plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program of long

term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

16. Lime Kiln Lighthouse

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Located adjacent to Lime Kiln State Park on the west side of San Juan Island, in the San Juan archipelago (see **Map 19**).

Marine Boundary Description/Discussion: The site is bounded on land by Lime Kiln State Park, and extends along the shoreline 300 yards south and 300 yards north from the lighthouse (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

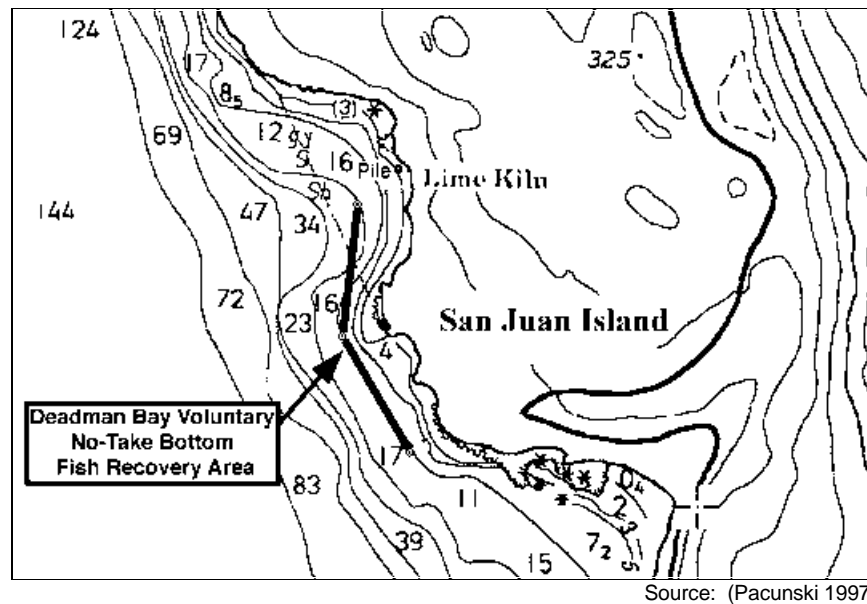
Adjacent or Overlapping Marine Protected Areas: Haro Strait Special Management Fishery Area (commercially closed sea urchin and sea cucumber area); Lime Kiln State Park; San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	54.5	1,800 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Lime Kiln Lighthouse site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 19. Lime Kiln Lighthouse Voluntary No-Take Bottom Fish Recovery Area
(Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

The waters off Lime Kiln Lighthouse are one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, the Lime Kiln Lighthouse site was identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Lime Kiln Lighthouse (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Lime Kiln Lighthouse and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Although the Lime Kiln Lighthouse site was not surveyed in 1997, plans (still tentative at this writing) call for completion of these baseline surveys at other

sites, and a program of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

17. Kellett Bluff

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Kellett Bluff is located on the southwest side of Henry Island in the San Juan archipelago (see **Map 20**).

Marine Boundary Description/Discussion: The site extends along shoreline from the navigational light at Kellett Bluff north approximately 800 yards (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

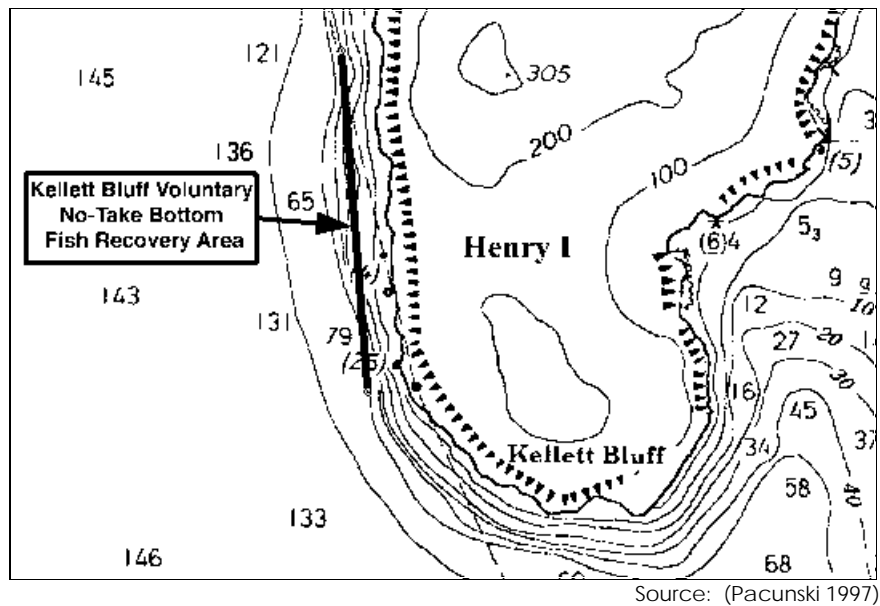
Adjacent or Overlapping Marine Protected Areas: San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	72.8	2,400 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Kellett Bluff site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 20. Kellett Bluff Voluntary No-Take Bottom Fish Recovery Area
(Bold line indicates section of coast included; seaward distance from shore of marine boundary is 1/4 mile)



Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Kellett Bluff is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Kellett Bluff has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Kellett Bluff (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Kellett Bluff and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Although Kellett Bluff was not surveyed in 1997, plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program

of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

18. Gull Rock

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Gull Rock is located northwest of Flattop Island in the San Juan archipelago (see Map 21).

Marine Boundary Description/Discussion: The site is zoned lengthwise along the north and south shores of Gull Rock (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

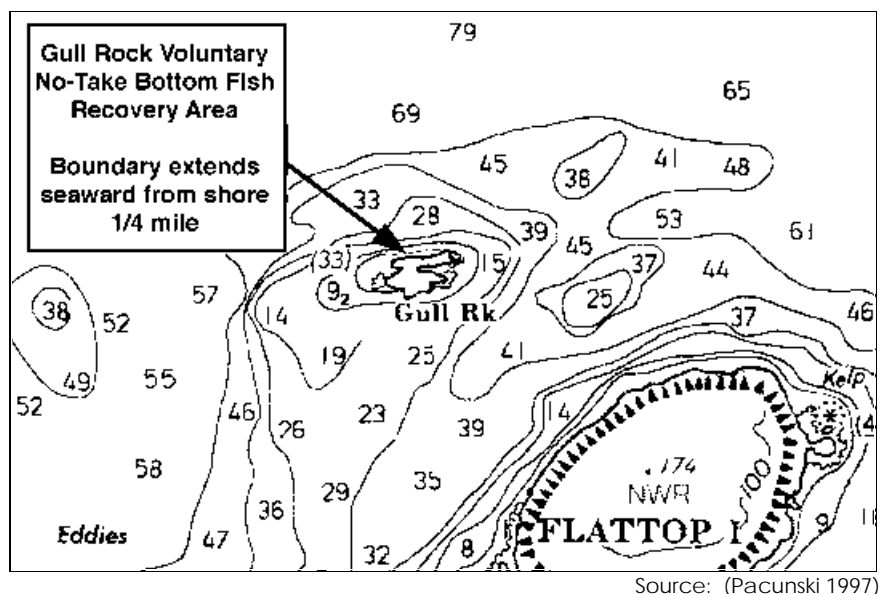
Adjacent or Overlapping Marine Protected Areas: San Juan Islands National Wildlife Refuge (Gull Rock site); San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	54.5	1,800 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Gull Rock site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 21. Gull Rock Voluntary No-Take Bottom Fish Recovery Area



Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Gull Rock is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Gull Rock has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Gull Rock is also one of the 83 islands, rocks and reefs that comprise the San Juan Islands Wildlife Refuge. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Gull Rock (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Gull Rock and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Although Gull Rock was not surveyed in 1997, plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program

of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

San Juan County Marine Resources Committee
350 Court Street
Friday Harbor, WA 98250
Home Page: <http://www.sanjuancounty.org/mrc/>

19. Bare Island

Voluntary No-Take Bottom Fish Recovery Area

Date(s) of Establishment: June 3, 1997

Establishing Agency/Organization(s): San Juan County, Board of County Commissioners

Managing Agency/Organization(s): San Juan County, Marine Resources Committee (MRC)

County: San Juan

Location/Vicinity: Bare Island is located north of Waldron Island in the San Juan archipelago (see Map 22).

Marine Boundary Description/Discussion: The site is zoned lengthwise along the north and south shores of Bare Island (San Juan County BOCC 1997). The marine boundary extends seaward 1/4 mile, or 1,320 feet (Rogers-Bennett, personal communication 1997).

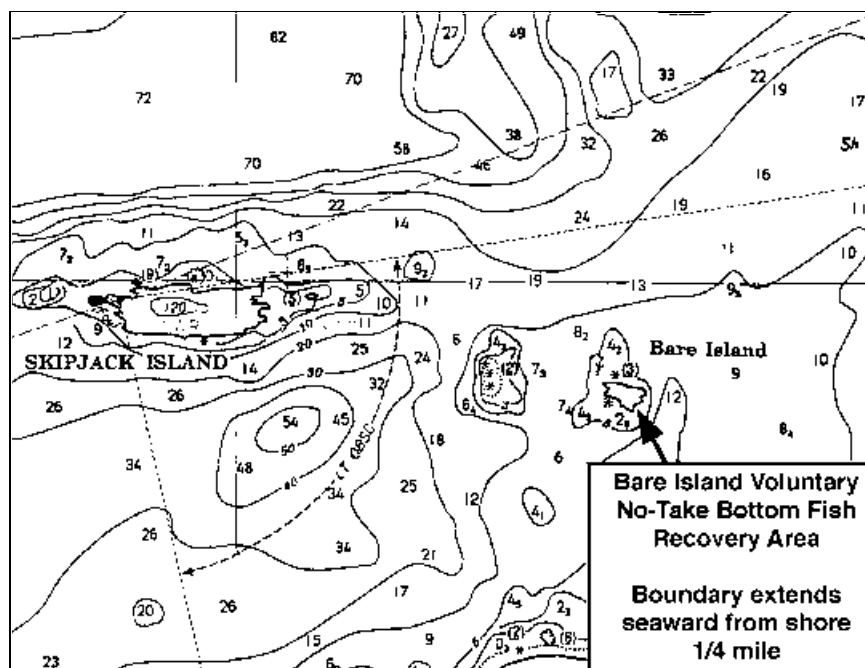
Adjacent or Overlapping Marine Protected Areas: San Juan Islands National Wildlife Refuge (at Bare Island site) San Juan and Cypress Island Marine Biological Reserve.

Current Size and Components

SUBTIDAL		INTERTIDAL		UPLAND		TOTAL ACRES	Shoreline Length (if known)
included (yes / no)	acres (if known)	included (yes / no)	acres (if known)	included (yes / no)	acres (if known)		
yes	unknown	yes	unknown	no	N/A	72.8	2,400 feet

Goals/Purpose/Objectives: In response to the problem of declines in bottom fish and fishing conditions, the Marine Resources Commission (MRC) adopted as one of its missions the proposal and development of an “approach to restore and conserve bottom fish” (MRC 1996). To this end, the Bare Island site is one of eight such voluntary no-take areas recommended by the MRC and designated by the County for the specific purpose of helping to replenish depleted bottom fish stocks. More specifically, the recovery areas are intended to help assure the survival of spawners in the bottom fish population, producing an increase in offspring. Additionally, increases in recovery area populations are expected to possibly enhance fishing in adjacent areas through a spill-over effect (MRC 1997a).

Map 22. Bare Island Voluntary No-Take Bottom Fish Recovery Area



Source: (Pacunski 1997)

Primary Legal Authority

None established for this site. No-take status is voluntary only, to be supported through education and monitoring efforts coordinated by the San Juan County Marine Resources Committee.

Natural and/or Cultural Resource Values/Highlights

Bare Island is one of eight locations in the county to have been selected by the Marine Resources Committee as suitable site for bottom fish recovery efforts. Based on public input and the specific knowledge of local and long-time fishers, Bare Island has been identified as an area where fishing conditions were once good, but has significantly declined over recent decades. Bare Island is also one of the 83 islands, rocks and reefs that comprise the San Juan Islands Wildlife Refuge. Another factor important to this site's designation is that it is not located in close proximity to boat launching areas (San Juan County BOCC 1997).

Restrictions on Human Activities to Protect Marine Resources

The voluntary nature of this bottom fish recovery area means that there are no site-specific formal rules, legal restrictions or laws set in place to control bottom fishing activity, and the area does not exclude salmon fishing. The voluntary compliance approach taken is based on consultations with sport and commercial fishing communities, dissemination of public information and other planned educational efforts.

MANAGEMENT OF THE SITE

Planning

In March of 1996, the San Juan County Board of Commissioners, responding to public concern, identified a series of marine resource related problems, and appointed the Marine Resources Committee (MRC) to look into possible solutions. The MRC is made up of scientists, politicians, fishers, business owners, and public at large (MRC 1997a).

The MRC spent about one year devising a program modeled after other MPAs such as Edmonds Underwater Park and the Friday Harbor-to-Point Caution San Juan Island Marine Preserve (MRC 1997a). By comparison to fished areas, the protected status of these sites was shown by Palsson and Pacunski (1995) to contribute to significantly increased size and numbers of bottom fish species. The MRC consulted with scientists, resource managers and government specialists, and held a series of public meetings, all of which resulted in the identification of eight proposed sites, including Bare Island (MRC 1997a).

In June of 1997, the Board of County Commissioners passed Resolution 49-1997, thereby designating Bare Island and the other seven proposed sites as “bottom fish recovery voluntary-only no-take areas” (San Juan County BOCC 1997). As of October 1997, the MRC had secured necessary initial grant funding to hire a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

Supervision/Enforcement

At the time of this writing this site had only been designated for a few months time. Consequently, very little information is yet available on voluntary compliance strategies and other measures related to site supervision. The MRC has discussed plans for shoreline posted signs (Kaill, personal communication 1997), as well as on-water supervision with Sound Watch and bottom fish recovery boats, and on-land citizen monitoring of compliance (Rogers-Bennett, personal communication 1997). It is not yet known to what extent of other direct site supervision might develop following the hiring of a manager for the Bottom Fish Recovery Program (Kaill, personal communication 1997).

The designation of the Bottom Fish Recovery Areas has not introduced any new fisheries enforcement authority to San Juan County, the MRC, or other parties.

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

Details on the development and operation of additional programs were lacking at the time of this writing, largely due to the very recent designation of the site. Many programs are in their infancy, or have not yet begun.

As of September 1997, four of the eight voluntary no-take recovery areas had been surveyed by the Washington Department of Fish and Wildlife utilizing a video-acoustic technique (Pacunski, personal communication 1997a). Although Bare Island was not surveyed in 1997, plans (still tentative at this writing) call for completion of these baseline surveys at other sites, and a program of long term population monitoring using the same technique (Kaill, personal communication 1997; Pacunski, personal communication 1997a). Such surveys, performed periodically over a long period of time and in comparison with eight control (harvested) sites (Rogers-Bennett, personal communication 1997), would allow the efficacy of the bottom fish recovery areas to be tracked. Additional planned surveys of the recovery areas will quantify lingcod nests and rockfish recruits (Rogers-Bennett, personal communication 1997).

Other public involvement efforts are under consideration, in the planning stages or just beginning. The production of an informational brochure is underway, and on-water distribution to boaters is planned through cooperation with the local Sound Watch program. Grants have been approved to fund the development of additional educational materials in coordination with the San Juan Nature Institute. Involving volunteer divers in site monitoring is an idea under MRC consideration. Alignments with nationwide volunteer-based programs such as The Great American Fish Count and REEF are being considered (Kaill, personal communication 1997).

For More Information:

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